Progress Report for Future Mining Project
December 1, 1999

Introduction

This report outlines the progress made to date for the "Future Mining"project. The work plan for this project can be reviewed in its entirety on the World Wide Web at http://www.epa.gov/region3/mtntop/index.htm. The purpose of this project is to assess the possible impacts of future mining and valley fills in the steep terrain of Appalachia by projecting the extent and distribution of remaining surface-minable coal reserves or resources in West Virginia, Kentucky, and Virginia. The project is subdivided into four separate tasks that are related, but progressing independently. For further information, you may wish to contact Mike Robinson at (412) 937-2882.

Progress to Date:

Task 1: *Assemble all available literature and other sources of information on coal resources in West Virginia, Kentucky, and Virginia*

An extensive literature search and coal resource expert interviews have been completed. The team has identified several resource studies that are in progress; the results of which may be available for the EIS. Compilation of the resource material is forthcoming.

Task 2: *West Virginia Geology GIS Method–Macro Method*

Since July 1999, a coal geologist with the West Virginia Geologic and Economic Survey (WVGES) has been gathering 7.5-minute quadrangle outcrop maps of the Coalburg and No. 5 Block coal beds created under previous WVGES mapping programs. The outcrop of these two seams represent the area of potential mountaintop mining activity. These maps are being re-drawn, scanned and vectorized (digitized) by WVGES's cartographer and geographic information system (GIS) technician. Editing and quadrangle boundary edge-matching are accomplished by using the software ArcInfo.

To date, both coal outcrops have been compiled, digitized, and edge-matched for 15 quadrangles. This process is nearly complete for another 17 quadrangles. The outcrops for the remaining 33 quadrangles are in various stages of progress (see Adobe Acrobat map). For thirteen quadrangles, either the Coalburg or No. 5 Block outcrop has been compiled and digitized but not edge-matched. For some quadrangles, particularly in the southwestern portion of the area, the WVGES coal geologist is correlating stratigraphic data in order to prepare structural contour maps and subsequent outcrop maps.

Task 3: *West Virginia Geology GIS Method–Micro Method*

The West Virginia Division of Environmental Protection-Technical Applications and Geographic

Information Systems Unit (TAGIS) is undertaking this detailed study of remaining surface-minable coal reserves in two watersheds. TAGIS intends to apply the detailed study approach to two watersheds: Island Creek and Spruce Fork. Much of the coal geology information for the Coalburg coal seam and those coal seams that occur stratigraphically higher in the Island Creek watershed have been obtained and entered into ArcInfo GIS and EarthVision 3-D modeling software. A detailed crop map of the Coalburg seam is now available for Island Creek. Past surface mining has also been entered into the GIS. Underground mining has yet to be entered. TAGIS will complete the Island Creek watershed and continue with work on the Spruce Fork watershed.

Task 4: *Industry Information*

All major coal companies conducting surface mining and other entities holding significant surface-minable coal resources in the steep slope areas of the Appalachian coalfields have been identified. Thirty-five letters to these companies requesting their voluntary disclosure of coal resource/reserve information have been mailed. Replies are expected by mid-December.

Timetable for Completing the Technical Study

Task 1: *Assemble all available literature and other sources of information on coal resource in West Virginia, Kentucky, and Virginia*

Anticipated completion by March 15, 2000

Task 2: *West Virginia Geology GIS Method–Macro Method*

Anticipated completion of outcrop identification, compilation, and digitization by mid- to late-January 2000.

Task 3: *West Virginia Geology GIS Method–Micro Method*

Completion of the Island Creek watershed is anticipated February 1, 2000.

Completion of the Spruce Fork watershed is anticipated in May 1, 2000.

Task 4: *Industry Information*

Subtask A: Company Identification and Contact:
Completed

Sub-Task B: Acquire Company Information:
Anticipated completion date: January 15, 2000

Sub-Task C: Import Data into a GIS:
Anticipated completion date: February 15, 2000

Sub-Task D: Prediction of Excess Spoil Generation:
Anticipated completion date: March 1, 1999